

Himalayan genera found in
Malayan subregion.

Dendrocitta. Sumatra.

Cochoa. Java.

Zoothera. Java.

Stachyris. Sumatra.

Pomatorhinus. Borneo & Java.

Garrulax. Sumatra.

Brachypteryx. Java.

Pteruthius. Java & Sumatra.

Allotrius. Java.

Tesia. Java.

Malayan genera found in S. India
or Ceylon, but not in Himalaya.

Mulleripicus.

Prionochilus.

Chalcopareia.

Batrachostomus.

Irena.

Arrenga.

Phœnicophaus.

Drymocataphus.

Austro-Malay genera.

Artamus.

Rhipidura.

Lalage.

Graucalus.

Ptilonopus.

Carcineutes.

Geopelia.

Genera common to Africa
and Malaya.

Machærhamphus.

Estrela.

Dicrurus.

Tchitrea.

Pitta.

Copsychus.

Ixos.

Indicator.

Centropus.

Coccyzus.

Chrysococcyx.

Trichastoma.

Hypsipetes.

Criniger.

Zosterops.

Prinia.

Drymoipus.

Cisticola.

Megalurus.

I hope that I have now succeeded in making my paper intelligible to those who read it map in hand; and if it succeeds in throwing some additional light on this important question, I shall not regret the pains I have bestowed on it.

As it has been written entirely in the country, with few books of reference at hand, I hope that any errors which have crept in will be overlooked, and trust that there are none of sufficient importance to mislead those who may wish to compare my conclusions with those obtained from the study of other branches of science.

November 4, 1873.

The Viscount Walden, F.R.S., President, in the Chair.

The Secretary read the following reports on the additions to the Society's Menagerie during the months of June, July, August, and September, 1873:—

The total number of registered additions to the Society's Mena-

gerie during the month of June 1873 was 222; of which 58 were by birth, 75 by presentation, 42 by purchase, 2 by exchange, and 45 were received on deposit. The total number of departures during the same period, by death and removals, was 108.

The total number of registered additions to the Society's Menagerie during the month of July 1873 was 189; of which 19 were by birth, 49 by presentation, 89 by purchase, 13 by exchange, and 19 were received on deposit. The total number of departures during the same period by death and removals was 94.

In the month of July the most noticeable additions were:—

1. A Rock-hopper Penguin (*Eudyptes chrysocome*) from the Falkland Islands, presented July 1st by J. M. Deane, Esq., being the first example of this species that has ever reached us.

2. A Tabuan Parrakeet (*Pyrrhulopsis tabuensis*), purchased July 7th, being the first living example of this scarce and beautiful species that I have ever seen alive. We have now specimens of each of the three known species of this peculiar Feejeean form of Parrots living in the collection—namely, *P. tabuensis*, *P. splendens*, and *P. personata*.

3. Two female Argus Pheasants (*Argus giganteus*) from Malacca, presented by Sir Harry Ord, K.C.B., Governor of the Straits Settlements, August 14th. This welcome addition makes up two pairs of this bird now in the collection, two males having been previously presented (in May 1872) by J. G. Fanshawe, Esq., F.Z.S.

The total number of registered additions to the Society's Menagerie during the month of August 1873 was 108; of these 14 were by birth, 46 by presentation, 20 by purchase, 2 by exchange, and 26 were received on deposit. The total number of departures during the same period, by death and removals, was 104.

The most noticeable of the additions were:—

1. A White-headed Saki (*Pithecia leucocephala*), purchased August 14th of Lieut. A. S. Bell, by whom it had been obtained from the Indians in the vicinity of the Kaieteur Falls in Demerara. One example only of this rare American Monkey has been previously living in the Society's Menagerie*.

2. Two Robben-Island Snakes (*Coronella phocarum*), presented August 29th by the Rev. G. H. R. Fisk, Colonial Chaplain. Having heard of the death of the example of this Snake previously received, upon which the species was established by Dr. Günther (P. Z. S. 1872, p. 837), Mr. Fisk has kindly procured and forwarded two others from the same island, where they are stated by Mr. Fisk to grow to a large size.

The total number of registered additions to the Society's Menagerie during the month of September 1873 was 90; of these, 3 were by birth, 42 by presentation, 10 by purchase, 1 by exchange, and 34 were received on deposit. The total number of departures during the same period, by death and removal, was 1411.

The most noticeable of the additions were:—

1. A pair of Ceylonese Jungle-fowls (*Gallus stanleyi*), presented

* See 'Revised List of Vertebrates,' p. 24.

September 10th by Henry Bayley, Esq. : new to the Society's collection.

2. A Violet-naped Lory (*Eos riciniata*), purchased September 26th, being of a species new to the Society's extensive collection of Parrots.

The following extracts from a letter addressed by Mr. R. B. N. Walker, C.M.Z.S., to Dr. J. E. Gray, F.R.S., and communicated to the Society by the latter, were read :—

“Hulk ‘Princess Royal,’
“Corisco Bay,
“May 5, 1873.

“I regret to inform you that my hopes of sending a live Gorilla to the Zoological Society of London have once more been disappointed, and in a most singular manner.

“On the 11th ult., I purchased from a native a fine healthy male Gorilla, apparently about two years of age. Being under the impression that those living specimens which I had formerly succeeded in obtaining (five in all) had been taken too much care of, I determined in the present instance to adopt a different system and to allow the animal to have its own way, simply taking precautions to prevent its being injured and at the same time to guard against its destructive and mischievous propensities. When purchased, the animal was by no means savage or spiteful, but rather what may be more properly termed shy and suspicious of strangers: at the expiration of about a week, however, it became sufficiently tame and confiding to admit of its being allowed to run about loose and to do as it liked; at the same time its food, instead of being confined to the fruits on which it is supposed to feed in its wild state, consisted in general of fragments from my own table and that of the mate, which, however, was varied by any thing edible which it could lay its hands on, and occasionally by a basin of condensed milk with a raw egg beaten up in it, and by fruit, including that of a species of *Amomum*, which it was very fond of, but which we found invariably to cause severe diarrhœa when eaten alone in any quantity; the disease, however, was soon checked by administering a raw egg and a few drops of chlorodyne. Finding that the animal had become so tame, it was left entirely to its own devices, especially as every one in the ship was at the same time so very busy as not to be able to pay much attention to it. It soon became quite at home in the hulk, alternately eating, sleeping, and playing with a large bull terrier (of by no means the most amiable disposition), which has a most decided dislike to negroes, but nevertheless took very kindly to the Gorilla (although of the same colour as natives), so that the two animals became constant playfellows.

“By allowing the Gorilla to *rough it*, instead of constantly watching it and appointing some one to take care of it, in which case (according to my own experience during twenty-two years) these animals become so much attached to their keeper or attendant that a separation from him almost invariably causes these affectionate apes to pine

away and die, and by habituating it to such food as is generally to be found on shipboard, I thought that the chance of its surviving the voyage to England would be greatly increased, and was anxiously looking out for the arrival of the 'Helen,' by which vessel I intended sending it to Liverpool, when it disappeared in the most mysterious manner on the morning of the 1st inst., the 'Helen' being then actually in sight, which caused its loss to be felt all the more keenly. On the previous evening the Gorilla came into the dining cabin as we sat down to dinner, remaining under the table during that repast in company with its canine friend, both of them eating such scraps as were given to them. There it went to sleep and was left about 9 P.M., after which it was seen by no one, excepting the mate, who saw it in the same place at daylight; soon after which it must have clambered up and fallen over the taff-rail into the sea unseen, which is the more strange, as with the exception of occasionally getting into the mate's berth and covering itself with its bedding, it was not addicted to climbing. Thus again (for the present) are destroyed my hopes of being the first to send so interesting an animal alive to England; but I shall not relax my endeavours.

"The present instance may be added to my previous testimony as to the facility of taming the young Gorilla. On this point my experience is totally at variance with what has been advanced by M. Du Chaillu, who never had any thing like the same opportunities as myself of forming a correct opinion on the subject. In fact, in this respect, I think I have the advantage of all visitors to this part of Africa, having resided here upwards of twenty years, during which period I have had no less than six living Gorillas in my possession, keeping them from three weeks to four months each. Besides this I have seen at least as many more in the possession of others, all of which were quickly tamed, with the exception of one male about seven or eight years old."

Mr. J. B. Perrin read a paper on the myology of *Opisthocomus cristatus*, his dissections having been based on two specimens transmitted to Mr. Selater by Hr. Kappler of the Maroni river, Surinam, and deposited in the Museum of the Royal College of Surgeons. Many of the muscles are described; and there are notes respecting the enormous crop, which rests in a kind of shallow basin formed on the anterior superior portion of the pectoral region, causing a modification of the great pectoral muscle, and thinning those fibres which take origin above the superior point of the peculiarly modified carina sterni. The second pectoral (subclavius) is attached to the head of the humerus, running as usual through the pulley in the head of the coracoid bone. The coraco-brachialis longus and brevis are present.

This paper will be published entire in the Society's 'Transactions.'

A communication was read from Capt. R. Beavan, Bengal Staff Corps, C.M.Z.S., containing a list of fishes met with in the river Nerbudda, Minar district of India.

A second communication from Capt. Beavan contained some notes on the difficulties involved in the acceptance of the Darwinian theory of evolution.

Mr. G. Dawson Rowley, F.Z.S., exhibited and made remarks upon a malformed variety of the domestic Duck.

The Secretary exhibited on behalf of Mr. E. P. Ramsay, of Dobroyde, N.S.W., C.M.Z.S., six specimens of *Ceratodus forsteri*, obtained during a recent visit to Queensland. All of them had been caught by hook and line in the river Mary, at Mr. Helsham's station. Along with them were examples of *Copidoglanis tandanus* (Mitchell), a species of *Arius*, and *Chatoessus erebi*, Günther, from the same locality.

The following papers were read:—

1. Description of three new Species of Diurnal Lepidoptera. By MONTAGU R. BUTLER. (Communicated by A. G. BUTLER, F.L.S., F.Z.S.)

[Received July 1, 1873.]

Family NYMPHALIDÆ.

Subfamily NYMPHALINÆ.

Genus CYNTHIA, Fabricius.

CYNTHIA ADA, n. sp.

♂. Wings above bright tawny; markings nearly as in *C. arsinoe*, but all the bands narrower and the spots smaller; outer margin of front wings less clouded with brown.

Wings below similar to *C. arsinoe*, but much paler, dusted with vermilion towards base; double discal band narrower; central lines darker; ocelli of hind wings smaller.

♀. Somewhat similar to *C. erota* (♀), but without tails; front wing less falcated, the outer margin very slightly waved; basal half of wing reddish brown, with the usual black markings in the cell. No black spot upon central white band above third median branch; the black spots beyond the band large and distinct, not ocellated; the white discal spots large and distinct; submarginal black band broad and very slightly waved.

Hind wing tawny ochraceous, becoming brown towards base; central band only white, bordered outwardly with brown to second subcostal branch, beyond this ochraceous; ocelli larger than in *C. erota*; apex grey, discal lunate bands broader, submarginal band narrower, less undulated.

Wings below with basal half pearly greyish, tinted here and there with reddish, the transverse lines red-brown; apical half pearly

whitish, clouded with greenish ochraceous, and crossed by lilacine bands; ocelli and markings as in male.

Expanse of wings ♂ $3\frac{1}{2}$ inches, ♀ 3 inches 11 lines.

Inhabits Queensland.

Genus ATELLA.

ATELLA BOWDENIA, n. sp.

Allied to *A. egista* and *A. sinha*, form of the latter, but coloured more as in the former, from which it differs above in the narrower marginal brown border, the indistinctness of the submarginal lunules of front wings, the absence of the discal series in hind wings, of the discal spots in all the wings, the extension of the disco-costal maculate band of front wings.

Wings below brighter ochraceous, the central and submarginal lunated silvery bands much narrower than in *A. egista*; discal series of black spots very minute; brown discal lunules obsolete.

Expanse of wings 2 inches 7 lines.

Inhabits the Friendly Islands.

Family HESPERIDÆ.

Subfamily PAMPHILINÆ.

Genus PAMPHILA.

PAMPHILA FLOSSITES, n. sp.

Wings above olive-brown, the basal third and body with bright metallic green shot; fringe dirty whitish; front wings with three dirty white spots placed obliquely below median branches.

Wings below ochraceous; front wings with interno-basal half black, and angle brown; white spots of upperside clear, united, increasing in width downwards; body whitish.

Expanse of wings 1 inch 4 lines.

Ega (*Bates*).

2. On the Long-tailed Jay of Northern China, with further Notes on Chinese Ornithology. By ROBERT SWINHOE, F.Z.S., H.M. Consul at Chefoo.

[Received July 30, 1873.]

My first and only interview with the Long-tailed Jay of Northern China I reported in the Society's 'Proceedings' for 1870, p. 448. Its notes and habits seemed very similar to those of the bird of the south; and I was not successful in procuring specimens. Père David had procured it, and I suppose has sent it to Paris; but if so, it has been accepted there as of the ordinary species. A kind friend at Peking has at last sent me a specimen; and I think those that will read the following description will allow that our *Urocissa* of the north is distinct from the species of the south and west.

UROCISSA BREVIVEXILLA, sp. nov.

Pallida, vexillis caudæ brevibus, parvis punctis albis terminatis : long tot. 18·5 poll. Angl., alæ 7·25, caudæ 12.

The tail is nearly equally graduated throughout; or, to speak more in detail, the first or outer rectrix is 4 inches long, the second 1·2 longer, the third 1·1 longer again, the fourth 1·2 more, the fifth 2 longer, and the centrals only 2 inches longer again, instead of being considerably longer as in, I think, all the other species. All the rectrices are narrower than in *U. sinensis*, especially near their tips, which end almost in points. The two centrals are very narrow, and have their white tips only ·7 inch long. The under tail-coverts fall 1·2 short of tip of first rectrix, instead of reaching to near its end. The general plumage is paler, the wing-coverts coloured as the back, and the black of the throat and breast mixed with violet-grey. Bill and legs red, and about the same size as in the other. This species is only known from the western hills of Peking.

While on the subject of North-China birds, it is as well to remark that several of the novelties introduced to science by M. J. Verreaux as “recueillis par M. l'Abbé Armand David dans les montagnes du Thibet Chinois,” were actually procured near Peking, or in the Ordo Mountains, and were not even seen by our traveller in Chinese Thibet, or he would have noted it. M. David is very careful always in stating his localities; and it is a shame that the authorities at the Museum du Jardin des Plantes should admit such confusion into their scientific papers. In the recent list of 33 novelties (Nouv. Arch. tom. vii. 1871, Bull. p. 25) no less than 5 have been received *only* from North China. They are the following:—

(6) *Turdus auritus*, which appeared to me too like *T. musicus* to separate.

(18) *Arundinax davidiana*. A large size of my *A. flemingi*. This may be a good species, differing perhaps as *A. cantans* does from *A. cantillans* ('Fauna Japonica'), or my *A. canturiens* from my *A. minuta*.

(26) *Parus pekinensis*. This is described under A. David's name without any reference to the former description in the 'Ibis' (1870, p. 155).

(27) *Mecistura vinacea* is the *Orites ouratensis*, A. David, MS., of my Catalogue, No. 186; but as Père David did not describe it, the now published name will have the precedence.

(32) *Pyrgilauda davidiana*, a new genus and species, is the “*Passer ouratensis*, A. David, in Mus. Peking.” of my catalogue, No. 383. For the same reason as in the last, Père David's name will have to give way.

These five species were represented by specimens in the Museum at Peking; the deduction of these 5 leaves the number of Moupin novelties 28. This number we have to reduce again by deducting four more, which M. Verreaux had already described (Nouv. Arch. 1869, Bull.), viz. *Trochalopterum formosum*, *Yuhina diademata*, *Suthora gularis*, and *Mecistura fuliginosa* (the last two

being in the second list diagnosed afresh without any reference to the former description), and which have been inserted in my catalogue. There remain therefore the following 24 species to add to my catalogue (P. Z. S. 1871, p. 337)—23 from Moupin, and 1 from Pekin:—

1. *Picus desmursi*, J. Verreaux. Moupin (*David*).
2. *Picoides funebris*, J. Verr. Ibid. (*id.*).
3. *Sitta sinensis*, J. Verr. Ibid. (*id.*)*.
4. *Siphia hodgsoni*, J. Verr. Ibid. (*id.*).
5. *Pnoepyga troglodytoides*, J. Verr. Ibid. (*id.*).
6. *Merula gouldi*, J. Verr. Ibid. (*id.*).
7. *Cholornis paradoxa*, J. Verr. Ibid. (*id.*).
8. *Suthora alphonsiana*, J. Verr. Ibid. (*id.*).
9. *Alcippe pæcilotis*, J. Verr. Ibid. (*id.*).
10. *Pterorhinus maximus*, J. Verr. Ibid. (*id.*).
11. *P. lanceolatus*, J. Verr. Ibid. (*id.*).
12. *Ianthocincla lunulata*, J. Verr. Ibid. (*id.*).
13. *Trochalopteryx ellioti*, J. Verr. Ibid. (*id.*).
14. *T. blythi*, J. Verr. Ibid. (*id.*).
15. *Abrornis acanthizoides*, J. Verr. Ibid. (*id.*).
16. *Siva cinereiceps*, J. Verr. Ibid. (*id.*).
17. *S. rugicapilla*, J. Verr. Ibid. (*id.*).
18. *S. striaticollis*, J. Verr. Ibid. (*id.*).
19. *Minla jerdoni*, J. Verr. Ibid. (*id.*).
20. *Proparus swinhoii*, J. Verr. Ibid. (*id.*).
21. *Carpodacus edwardsi*, J. Verr. Ibid. (*id.*).
22. *C. trifasciatus*, J. Verr. Ibid. (*id.*).
23. *C. vinaceus*, J. Verr. Ibid. (*id.*).
24. *Arundinax davidiana*, J. Verr. Pekin (*id.*).

We must not pass by three other novelties, also from Moupin, given in Père David's catalogue (Nouv. Arch. vii. Bull. p. 1) with MS. names; but until descriptions are published, by the laws of nomenclature they cannot be accepted. We give their names for the sake of their numbers:—

25. *Phyllopneuste trinotaria*, A. David, MS.
26. *Calliope pectardens*, A. David, MS.
27. *Carpodacus verreauxi*, A. David, MS.

In further studying Père David's catalogue, I find that I have omitted the following species, procured in China only by himself, from my 'Catalogue of the Birds of China':—

28. *Troglodytes nipalensis*, Hodgs. Moupin.
29. *Abrornis affinis*, Hodg. Ibid.
30. *Lophophanes dichrous* (Hodgs.). Ibid.
31. *L. melanolophus* (Vigors). Kokonor.
32. *Petrocincla erythrogastra*, Vigors. Moupin.
33. *Hydrobata cashmiriensis*, Gould. Ibid.

* Larger than my Ningpo bird. and, I think, different.

34. *Suthora conspicillata*, sp. nov. Kokonor.
35. *Allotrius œnobarbus* (Temm.), var. *pallidus*. Ibid.
36. *Hesperiphona affinis* (Blyth). Moupin.
37. *Carpodacus pallasii*, Bp. Pekin.
38. *Palæornis derbianus*, Gray. Moupin.
39. *Vivia innominata*, Burton. Kokonor.
40. *Puffinus leucomelas*, Temm. Shantung.

The last is added, I think, only on conjecture; but it is not said so, and we must admit it also. At the end of his catalogue, Père David gives the distinctive characters of his *Ianthocincla artemisiæ*, described before in the 'Ann. & Mag. of Nat. Hist.' for April 1871, to which reference is made, and adds three new species (and one variety), to wit:—*Suthora conspicillata*, from Kokonor; *Alcippe cinerea* of the bird from Moupin, identified by Verreaux with *A. nipalensis*, Hodgs.; and *Paradoxornis guttaticollis* of the bird from Moupin, considered by Verreaux to be *P. flavirostris*, Gould. These make no further increase to our number; 40 added to the 675 of my Catalogue, gives 715 species of birds noted from China up to the end of A.D. 1871.

Chefoo, May 12, 1873.

3. Characters of new Species of Birds discovered in New Guinea by Signor d'Albertis. By P. L. SCLATER, M.A., Ph.D., F.R.S., Secretary to the Society.

[Received August 1, 1873.]

(Plates LII.—LVII.)

At the last meeting of this Society, I had the pleasure of exhibiting to the members a collection of birds made by Signor Luigi Maria d'Albertis, during his recent expedition into the interior of New Guinea, and of pointing out the characters of two new Paradise-birds, which formed part of it*. I have now examined the rest of the collection, which contains altogether seventy-nine skins belonging to fifty-three species, and find in it representatives of fourteen other species which appear to be new, and which I propose to characterize as follows:—

1. EUPETES LEUCOSTICTUS, sp. n. (Plate LII.)

Supra saturate oleagineo-viridis, pileo cum cervice postica castaneis: alis nigris, harum tectricibus maculis rotundis albis ornatis; secundariis autem externis dorso concoloribus: loris, regione oculari et striga utrinque postoculari cum mento et gula media nigris: plaga magna cervicali utrinque alba: cervice antica nigra albo punctata: abdomine cærulescente cinereo, lateraliter

* See above, p. 557 et seq.



J. Smit

$\frac{3}{4}$

J. Smit lith.

M & N Hanhart. imp.

EUPETES LEUCOSTICTUS.



J. Smit. hth.

M & N Hanhart imp.

LEUCOPHANTES BRACHYURUS



$\frac{3}{4}$

J. Smit. hth.

M & N. Hanhart. imp.

CAMPEPHAGA AURULENTA.



$\frac{3}{4}$

J. Smit

J. Smit lith.

M & N Hanhart. imp.

MELIDECTES TORQUATUS.



$\frac{3}{4}$

J. Smith lith.

M & N. Hanhart. imp.

MELIPOTES GYMNOPS.



J. Smit

$\frac{2}{3}$

J. Smit lith.

M & N Hanhart sculp

PTILONOPUS BELLUS

oleagineo perfuso : cauda nigra, reatricibus lateralibus albo late terminatis, mediis autem omnino oleagineis dorso concoloribus : rostro nigro ; pedibus obscure plumbeis : iride nigra : long. tota 7 poll. Angl., alæ 3, caudæ 3·4, rostri a rictu 1, tarsi 1·2.

Hab. Atam, apud montes Papuanos *Arfak* dictos (*d'Albertis*).

Obs. I have placed this well-marked species in *Eupetes* on account of its slender bill and long cuneate tail; but it is certainly not a very typical form of that genus, having the front slightly bristled. The wings are short and rounded, the sixth, seventh, and eighth primaries being the longest. The tail of the single skin examined is imperfect; but the external rectrix is apparently about an inch shorter than the median pair. The acrotarsia are smooth, and the scutal divisions almost entirely obsolete.

The specimen was obtained by Signor *d'Albertis* at Atam in October 1872.

2. *MONARCHA FRATER*, sp. n.

Cinerea ; rostri ambitu nigerrimo : regione auriculari alba : alis caudaque nigris : ventre, crisso et subalaribus castaneis : rostro cineraceo, pedibus nigris : iride castanea : long. tota 6, alæ 3·3, caudæ 2·8.

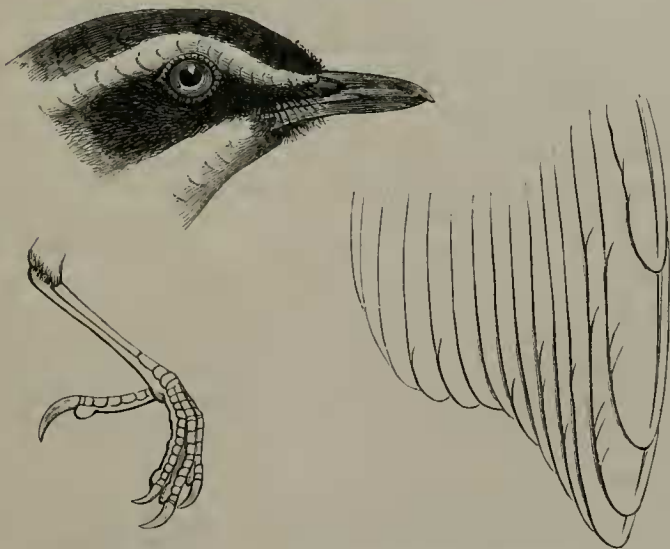
Hab. Atam, apud montes Papuanos *Arfak*.

Obs. Species assimilis *M. carinata* ex Australia et ejusdem formæ, sed facie angustiore nigra et ventre saturatiore castaneo diversa.

3. *LEUCOPHANTES BRACHYURUS*, sp. et gen. nov.

Leucophantes gen. nov. ex fam. Muscipidarum, rostro ad basin dilatato, apice uncinato, rictu setis paucis armato : alis longius-

Fig. 1.



Head, wing, and foot of *Leucophantes brachyurus*.

culis; cauda brevi, quadrata: tarsi graciliusculis, modice elongatis.

LEUCOPHANTES BRACHYURUS, sp. n. (Plate LIII.)

Supra obscure schistaceus, pileo nigricante, superciliis latis et elongatis, albis: alis externe nigris, speculo alari et campterio albis: cauda nigricante unicolori; subtus omnino albus, mento summo nigro: long. tota 5, alæ 2·9, caudæ 1·8, tarsi 0·85, rostri a ricta 0·95.

Fem. mari similis.

Hab. Atam, apud montes Papuanos Arfak.

4. RECTES BENNETTI, sp. n.

Supra brunneus cineraceo undatus, subtus paulo clarior: remigibus et rectricibus extus pure brunneis: subalaribus et remigum marginibus interioribus cervino-rufescentibus: rostro breviusculo, fortiter uncinato, laniino, nigro: rictu setoso: pedibus obscure plumbeis: iride castanea: long. tota 9·3, alæ 4·7, caudæ, vix rotundatæ, 3·8, rostri a rictu 1·15.

Hab. Atam, apud montes Papuanos Arfak.

Obs. Species ab affini *R. strepitante*, colore saturatiore et rostro laniino diversa, in honorem Georgii Bennett, hujus Societatis Socii et benefactoris optimi dicata.

5. PACHYCEPHALA RUFINUCHA, sp. n.

Supra olivaceo-viridis: capite cinereo, nucha rubra: subtus alba, lateribus fusciscenti-olivaceis; gula flava, crisso flavicante: rostro et pedibus nigris: iride castanea: long. tota 7, alæ 3·5, caudæ 3, tarsi 1·25, rostri a rictu 0·95.

Hab. Atam, apud montes Papuanos Arfak.

This is a large and not very typical *Pachycephala*, having the bill much elevated and compressed. Its coloration is definite, and does not resemble that of any species known to me. The fourth primary is rather longer than the third, and longest. The tail is slightly rounded. The divisions of the acrotarsial scutes are nearly obsolete.

6. PACHYCEPHALA SOROR, sp. n.

Olivacea, alis caudaque obscure fuscis olivaceo extus limbatis: capite nigro: subtus flava, gutture albo, torque pectorali nigro: rostro et pedibus nigris; iride nigra: long. tota 6·5, alæ 3·7, caudæ 2·7, rostri a rictu 0·85, tarsi 0·85.

Hab. Atam, apud montes Papuanos Arfak.

This is a typical *Pachycephala*, closely allied to *P. melanura* (Gould, B. Austr. vol. ii. pl. 66), but with the tail brown, bordered with olive-green. The black head extends over the nape and joins the olive-green of the back without any traces of intervening colour.

7. CAMPEPHAGA AURULENTA, sp. n. (Plate LIV.)

Aureo-flava, interscapulio viridescente: pileo cinereo, superciliis albis utrinque marginato: loris et capitis lateribus cum gutture toto alis et cauda splendenti-nigris, alarum tectricibus majoribus

et scapularibus albo extus marginatis : rectricibus lateralibus albo terminatis : subalaribus et remigibus intus ad basin albis : rostro et pedibus nigerrimis : long. tota 7·5, alæ 4, caudæ 3·7, tarsi 0·8 ; iride nigra.

Hab. Papua, Sorong.

Obs. Sp. colore corporis lætissime flavo ab omnibus hujus generis hucusque descriptis satis diversa.

8. CLIMACTERIS PLACENS, sp. n.

Supra murino-brunneus, pilei plumis rufescentibus, scapis pallidioribus, et nigro anguste terminatis : alis nigris, fascia lata remigum basin transeunte et subalaribus ochraceo-fulvis, remigum apicibus et secundariis dorso proximis obscure fuscis : cauda nigra, cinereo terminata, rectricibus duabus mediis dorso fere concoloribus : subtus dilutior, magis cinerascens, ventre toto et crisso nigro et ochraceo striatis ; plaga suboculari utrinque rufa : rostro nigro ; pedibus flavicantibus ; iride nigra : long. tota 5·4, alæ 3·2, caudæ 2·5, tarsi 0·9, digiti post. sine ungue 0·6.

Hab. Atam, apud montes Papuanos Arfak.

This discovery of a typical species of this Australian genus in New Guinea is of very great interest. Dr. Schlegel has already recorded the existence of *Sittella* in the same country (Ned. Tijdsch. iv. p. 47).

9. PTILOTIS CINEREA, sp. n.

Fusca, alis caudaque vegetioribus ; capite toto et corpore subtus cinereis ; abdomine medio pallidior : remigum et rectricum marginibus internis rufescenti-ochraceis : rostro nigro ; pedibus clare cinereis : iride læte castanea : long. tota 8, alæ 4·1, caudæ 3·9, tarsi 1·1, rostri a rictu 0·95.

Hab. Atam, apud montes Papuanos Arfak.

This is a plain uniformly coloured species of *Ptilotis*, apparently somewhat resembling *P. unicolor*, Gould. The inner margins of the wing- and tail-feathers are of a pale salmon-colour. The wing is pointed, the fourth and fifth feathers being equal and longest ; the first is short, reaching to a length of 2·3 in. from the bend. The gonyx is nearly straight, the culmen much arched. The nostrils are lateral and linear.

10. PTILOTIS MELANOPHRYS, sp. n.

Supra fusca, alis et cauda extus flavo anguste marginatis ; pileo cinereo lavato : loris et lateribus capitis nigris, fascia suboculari flava : subtus alba, pectore flavo tincto et striis longitudinalibus fuscis asperso : remigum et rectricum marginibus internis cum rectricibus subalaribus rufescenti-ochraceis : rostro nigro, pedibus albidis : iride nigra : long. tota 8·5, alæ 4·3, caudæ 3·8, tarsi 1·1.

Hab. Atam, apud montes Papuanos Arfak.

This *Ptilotis* belongs to the same group as *P. sonorus*, Gould, and its allied species. It may be the *Ptilotis auriculata* of the Leyden

Museum, of which, however, I believe no description has been published*.

11. MELIDECTES TORQUATUS, gen. et sp. n. (Plate LV.)

Melidectes gen. nov. † ex familia Meliphagidarum: rostro elongato, caput æquante, tenuiusculo, parum arcuato; naribus linearibus, in sulco longitudinali positis: spatio altero postoculari lato et altero postrictali angusto omnino nudis: cauda longa, paulum rotundata; tarsis modicis: alis acutis, modice elongatis.

Fig. 2.



Head and foot of *Melidectes torquatus*.

MELIDECTES TORQUATUS, sp. n.

Supra fusca, alis caudaque extus olivaceo vix marginatis; interscapulio nigricante, plumis albo late terminatis: pileo nigro fascia utrinque rubra a spatio oculari nudo diviso: capitis lateribus et gula nigris: pectore albo, fascia lata nigra circumcincto: ventre albido cervino imbuto, lateraliter nigro guttato: tibiis et subalaribus ochraceo-rufescentibus: rostro griseo: pedibus plumbeis: iride nigra: long. tota 8·5, alæ 4, caudæ 3·6, rostri a rictu 1·2, tarsi 1.

Fem. mari similis.

Hab. Atam, apud mont. Papuanos Arfak.

This is a conspicuous new Meliphagine form, not very far from *Ptilotis*, but distinguishable by the bareness of the sides of the face

* I have obtained a drawing of *Meliphaga auriculata* of the Leyden Museum since this paper was read, and find it to be quite different.—P. L. S.

† Μέλι, *mel*, et δηκτής, *mordicator*.

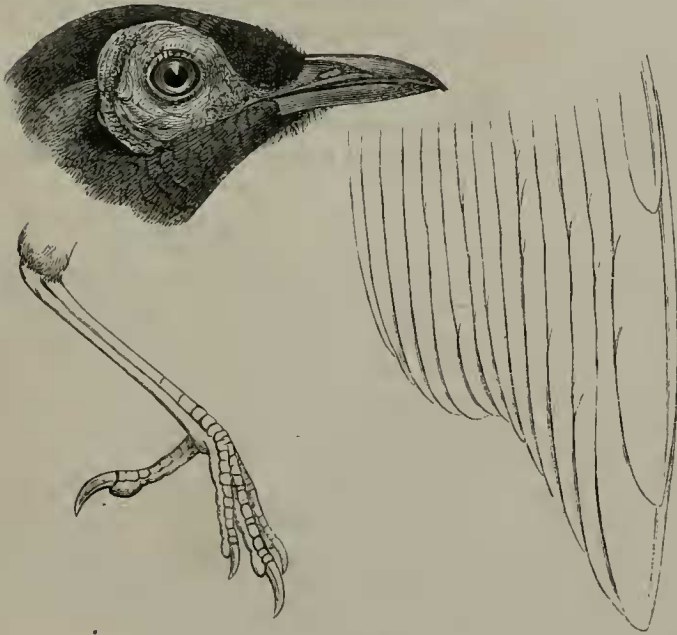
and bare stripe behind the rictus. These are separated by a scanty line of feathers extending beneath the eye.

A pair of these birds were obtained by Signor d'Albertis at Atam in October 1872.

12. MELIPOTES GYMNOPS, gen. et sp. n. (Plate LVI.)

*Melipotes** gen. nov. ex fam. Meliphagidarum, rostro crassiusculo, breviorē quam caput, culmine arcuato, gonyde recta; naribus ovalibus: regione auriculari late nuda et subtus carunculata: alis modicis: cauda modica paulum elongata.

Fig. 3.



Head, wing, and foot of *Melipotes gymnops*.

MELIPOTES GYMNOPS, sp. n.

Ex cinereo niger: regione oculari late nuda et subtus in carunculam auricularem producta carnea: alis fusciscenti-olivaceo extus limbatis: tectricum alarium superiorum minorum et ventris plumis striis elongatis pallide cervinis scapam occupantibus et inde in maculas cordiformes excurrentibus ornatis: ventre imo et crisso cum tectricibus subalaribus et remigum limbo interiore rufescenti-cervinis: rostro nigro, pedibus obscure plumbeis: iride nigra: long. tota 9, alæ 4·5, caudæ 4·2, tarsi 1·2, rostri a rictu 0·95.

Hab. Atam, apud montes Papuanos Arfak.

This form of the Meliphagine family is very distinct on account of the denudation of the whole ocular region, which is fringed below by a narrow caruncle. D'Albertis's notes do not give the colour of these

* Μέλι, mel, et πότις, potator.

naked parts; but they are probably orange or flesh-colour. The bill is short and rather stout; the nostrils are short and suboval, and situated in a shallow groove near the central feathers.

13. *ÆGOTHELES ALBERTISI*, sp. n.

Clare rufus, fere castaneus, pileo antico et laterali cum scapularibus et alarum tectricibus maculis albis rotundis nigro partim cinctis ornatis: subtus præcipue in ventre dilutior et albo nigroque crebro variegatus: remigum et reetricum pogoniis interioribus nigris, exterioribus rufis, indistincte nigro transfasciatis: reetricum mediarum apicibus pure rufis: rictu utrinque vibrissis elongatis, incurvis, filamentis lateralibus munitis, obsito: rostro nigro, pedibus rosaceo-albis, iride clare castanea: long. tota 7·5, alæ 4·5, caudæ 3·8, remige quarto longissimo.

Hab. Atam, apud montes Papuanos Arfak.

Obs. Sp. ab *Æ. wallacii* crassitie minore, pedibus debilioribus, rostro minus lato et colore rufo dignoscenda, et in honorem Domini de Albertis rerum naturalium in montibus Papuanis exploratoris acerrimi dicata.

14. *PTILONOPUS BELLUS*, sp. n. (Plate LVII.)

Clare psittaceo-viridis, maculis scapularium paucis obscure cæruleis: pileo superiore rosaceo-rubro: vitta semilunari pectoris supra flava, subtus alba: plaga in ventre medio rosaceo-rubra; ventre imo, crisso et tibiis flavo mixtis: remigibus et reetricibus interne schistuceis, harum vitta apicali dilutiore: rostro flavo: pedibus obscure rubris: iride flava: long. tota 9, alæ 5·2, caudæ 3·3.

Hab. Atam, apud montes Papuanos.

This fine Pigeon belongs to the group of *P. rivolii*, *P. prasinorhous* and its allies. It seems to resemble *P. speciosus* of Schlegel (Ned. Tijdschr. iv. p. 23) in having the upper part of the thoracic band yellow, but differs much from that species in having the whole crown of the head of a fine rosy red, like the patch in the middle of the abdomen.

I conclude these descriptions with a complete list of the species in Signor d'Albertis's present collection, with the localities at which they were obtained.

I. PASSERES.

1. *Eupetes cærulescens*, Temm. Andai.
2. — *leucostictus*, sp. n. Atam.
3. *Melampitta lugubris*, Schl. Atam.
4. *Rhipidura gularis*, Müll. et Schl. Kulokadi.
5. — *hyperythra*, G. R. Gray. Atam.
6. *Monarcha frater*, sp. n. Atam.
7. *Peltops blainvillii*, Garn. Sorong.
8. *Todopsis cyanocephala*, Q. et G. Ramoi.
9. *Leucophantes brachyurus*, sp. et gen. nov. Atam.
10. *Rectes cirrhocephalus*, Less. Kapaur.
11. — *dichrous*, Bp. Atam.

12. *Rectes bennetti*, sp. n. Atam.
13. *Pachycephala schlegeli*, Rosenb. Atam.
14. — *rufinucha*, sp. n. Atam.
15. — *soror*, sp. n. Atam.
16. — (♀ sp. ign.). Atam.
17. *Campephaga strenua*, Schl. Atam.
18. — *boyeri* (Puch.). Andai.
19. — *aurulenta*, sp. n. Sorong.
20. *Climacteris placens*, sp. n. Atam.
21. *Ælurædus buccoides* (Temm.). Sorong.
22. — *melanotis*, Gray. Atam.
23. *Amblyornis inornatus* (Schl.). Atam.
24. *Chlamydodera xanthogastra* (Schl.). Atam.
25. *Gracula anais* (Less.). Sorong.
26. *Ptilotis cinereus*, sp. n. Atam.
27. — *melanophrys*, sp. n. Sorong.
28. *Melidectes torquatus*, sp. et gen. nov. Atam.
29. *Melipotes gymnops*, sp. et gen. nov. Atam.
30. *Paradisea raggiana*. Orangeri Bay.
31. *Lophorina atra*. Atam.
32. *Diphyllodes speciosa*. Atam.
33. *Parotia sexpennis*. Atam.
34. *Epimachus maximus*. Atam.
35. *Drepanornis albertisi*. Atam.
36. *Seleucides alba*. Sorong.

II. CAPRIMULGIDÆ.

37. *Ægotheles albertisi*, sp. n. Atam.

III. ALCEDINIDÆ.

38. *Syma torotoro*, Less. Andai and Kapaur.
39. *Tanysiptera nympha*, Gray. Sorong.

IV. PSITTACI.

40. *Opopsitta desmaresti* (Garn.). Sorong.
41. — *diophthalma* (Hombr. et Jacq.). Putat, near Andai.
42. *Eos fuscatus*, Blyth. Sorong.
43. *Trichoglossus cyanogrammus*, Wagl. Emberbaki and Andai.
44. — *nigrogularis*, G. R. Gray. Aru Islands.
45. — *musschenbroecki*, Schl. Atam.
46. *Charmosyna papuensis*, Less. Atam.
47. — *pulchella*, G. R. Gray. Atam.

V. COLUMBÆ.

48. *Eutrygon* terrestris* (H. & J.). Emberbaki.

* This genus was established as *Trugon* by Hombron and Jacquinet in 1846, a term already employed under its correct form, *Trygon*, as a genus of fishes. I therefore proposed in 1858 to change it to *Eutrygon* (Journ. Pr. Linn. Soc. ii. p. 168).

49. *Ptilonopus bellus*, sp. n. Atam.
 50. — *prasinorrhous*, G. R. Gray. Sorong.
 51. *Phlegænas rufigula*, Puch. Emberbaki.
 52. *Otidiphaps nobilis*, Gould. Atam.

VI. HERODIONES.

53. *Butorides javanica* (Horsf.). Sorong.

4. Observations sur le *Bucorax* de l'Afrique australe (*Buceros carunculatus cafer*, Schleg.). By J. V. BARBOZA DU BOCAGE, F.M.Z.S.

[Received August 4, 1873.]

M. Schlegel, dans son excellent catalogue des collections ornithologiques du Musée de Leyde, admet sous les nom de *B. carunculatus abyssinicus*, *B. carunculatus guineensis*, et *B. carunculatus cafer* trois conspécies ou races géographiques fixés du *B. abyssinicus*.

La plupart des ornithologistes modernes, ceux surtout qui se sont plus particulièrement occupés de l'étude des oiseaux d'Afrique, n'acceptent pas l'opinion de Schlegel. Pour eux les différences de taille et les modifications dans la forme du casque, sur lesquelles cet auteur établissait les caractères différentiels de ses trois conspécies, sont tout bonnement de simples variations d'âge et de sexe. A peine si quelques ornithologistes, parmi lesquels il faut compter M. Gurney, hésitent encore à se prononcer sur cette question, faute de documents décisifs. Un seul, enlevé récemment à la science, G. R. Gray, s'était rapproché de l'opinion de Schlegel en admettant comme espèce distincte le *B. leadbeaterii* de l'Afrique australe, équivalent du *B. carunculatus cafer*, Schleg.

Pour le moment la question paraît donc résolue dans un sens contraire au savant zoologiste de Leyde, à moins qu'on ne puisse produire de nouvelles preuves en faveur de l'opinion généralement abandonnée.

C'est précisément ce que je pense pouvoir faire, au moins par rapport au *Bucorax cafer*.

Dans ces derniers temps M. d'Anchieta, l'infatigable explorateur des possessions portugaises dans l'Afrique occidentale, m'a envoyé de l'intérieur de Mossamedes une intéressante série d'individus du g. *Bucorax*, d'après lesquels je pense qu'on doit conclure l'existence d'une espèce tout-à-fait distincte du *B. abyssinicus*, celle dont Schlegel a fait une conspécies sous le nom de *B. abyssinicus cafer*.

Six de ces individus, dont 4 mâles et 2 femelles, ont toute l'apparence d'adultes : leur taille, le développement du bec et du casque, l'ensemble de leurs caractères extérieurs, tout semble le prouver ;

le septième individu est un jeune et probablement de la première année.

L'adulte de cette espèce se montre à peine inférieur en taille et en proportions à l'adulte du *B. abyssinicus*; c'est le résultat auquel je suis parvenu par comparaison directe avec deux spécimens de l'espèce d'Abyssinie, provenant l'un du voyage de Petit et Dillon, l'autre du voyage de Schimper.

Les caractères différentiels du *B. cafer* sont principalement fournis par le casque (figs. 5 et 6). Cet appendice est beaucoup moins élevé et d'une forme assez différente de celui du *B. abyssinicus* (figs. 1 et 4), ainsi que Schlegel a fort bien constaté: il est formé par devant, comprimé, à carène simple et étroite. Au lieu de présenter en dessus

Fig. 1.

Summit of casque of *Buceros abyssinicus* (Abyssinia). $\frac{1}{8}$ natural size.

Fig. 2.

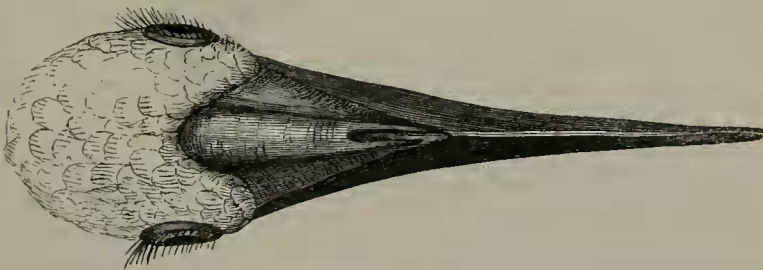
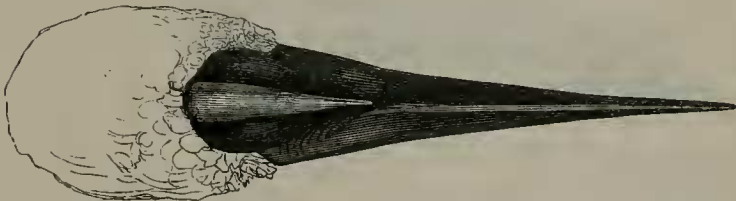
Summit of casque of *Bucorax cafer* (Mossamedes). $\frac{1}{8}$ natural size.

Fig. 3.

Summit of casque of *Bucorax guineensis*, jr. (Cachou). $\frac{1}{8}$ natural size.

un bord large, aplati, sillonné dans le sens longitudinal, saillant sur les côtés et décrivant un segment de cercle à compter de son origine sur la base du bec, le casque du *B. cafer* a un bord supérieur peu distinct, étroit, arrondi et disposé parallèlement au bord de la mandibule supérieure.

Il faut encore ajouter que pas un seul de mes spécimens ne porte à la base de la mandibule supérieure la plaque d'un roux-jaunâtre qu'on trouve toujours sur le *B. abyssinicus* d'Abyssinie.

Même en supposant que ces individus adultes ne le sont pas autant que les deux spécimens d'Abyssinie avec lesquels je les ai comparés, il me serait impossible d'admettre qu'un casque, ayant la forme et les dimensions de celui du *Bucorax cafer*, deviendrait, même au bout de longues années, le casque si caractéristique du *B. abyssinicus*.

Fig. 4.

Head of *Bucorax abyssinicus*.

Fig. 5.

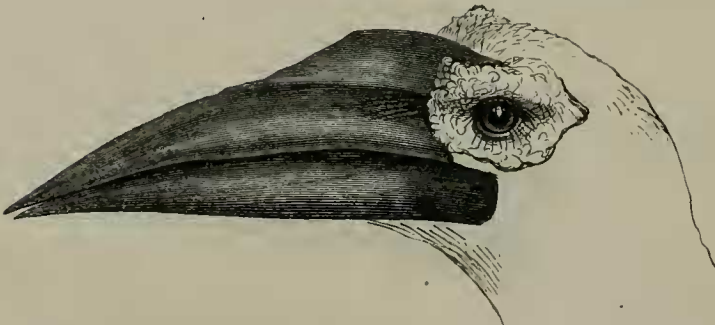
Head of *Bucorax cafer* ♀, young.

Fig. 6.

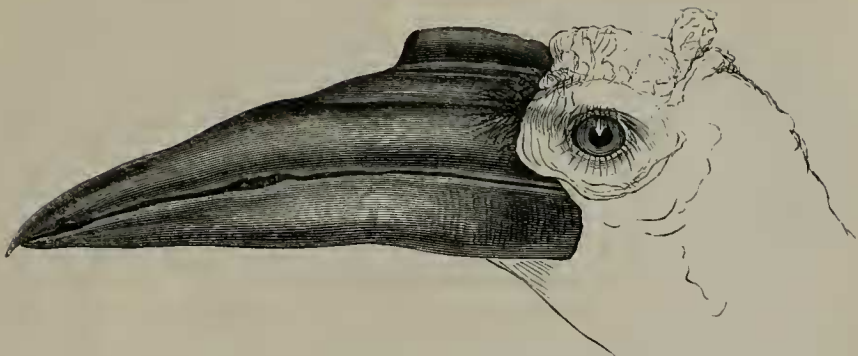
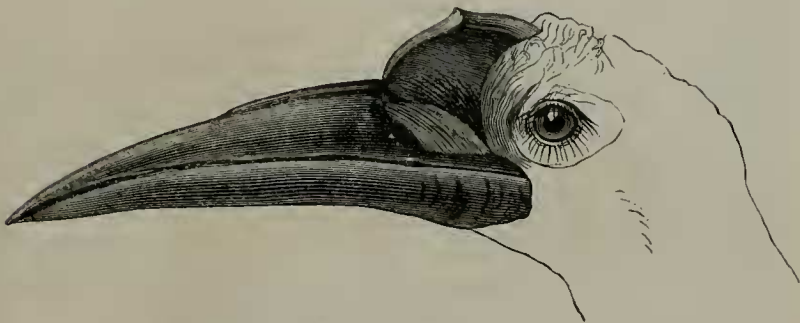
Head of *Bucorax cafer* ♂, adult

Fig. 7.

Head of *Bucorax guineensis* young.

Les croquis qui accompagnent cette note permettront de saisir plus facilement les différences que je viens de signaler.

D'après les indications que me sont fournies par M. d'Anchieta, la région périophthalmique, le cou et la poche gutturale présentent une coloration jaune plus ou moins mélangée d'orange ou de rouge. L'une des femelles porte sur la poche gutturale une large tache d'un bleu-noir; chez deux mâles on remarque très-distinctement une petite tache allongée d'un bleu-foncé de chaque côté du cou, au-dessous de l'angle de la mandibule inférieure. Le jeune a ces parties d'un jaune-rougeâtre sans aucun mélange de bleu.

Chez mes deux individus du *B. abyssinicus* les régions nues de la tête et du cou sont entièrement d'un bleu-foncé.

L'iris du *B. cafer* est d'un jaune-verdâtre pâle.

J'ai réuni dans le tableau ci-dessous les dimensions en centimètres prises sur les 7 individus du *B. cafer* et celles des 2 exemplaires du *B. abyssinicus* qui existent dans le Muséum de Lisbonne: l'individu A, de ces derniers, provient du voyage de Petit et Dillon, l'individu B du voyage de Schimper; ils ne portent pas d'indication de sexe.

Bucorax cafer.

	Aile.	Queue.	Bec.	Hauteur du Casque.	Bord supérieur du casque.	
					longueur.	largeur.
♂ adulte	63	37.5	21	2.8	4.5	1.1
♀ „	55	36	18	2.6	4.2	0.8
♂ „	62	37	20	2.6	5.5	1.1
♂ „	58	36	18	2.5	4.0	0.9
♂ „	60	36	20	2.7	5.4	1.1
♀ „	55	34	18	2.6	5.0	1.0
♀ jeune	51	30	17	2.6	3.6	0.8

Bucorax abyssinicus.

A.	58	38	23	5.2	10.5	2.5
B.	56	37	19.5	4.6	9.8	2.3

Relativement à la troisième espèce admise par Schlegel, *Buceros carunculatus guineensis*, l'insuffisance de matériaux ne me permet pas d'émettre une opinion consciencieuse. Je possède seulement la tête d'un individu jeune, à région périophthalmique et cou bleu-noirs, qui m'a été rapporté, il y a quelques années de Cochin, sur le côté de Guinée. Le casque (fig. 3, p. 699, et fig. 7, p. 701) est fermé par devant, à carène étroite et peu distincte, mais proportionnellement plus large que chez le *B. cafer*; le bord supérieur du casque, loin d'être parallèle au bord de la mandibule supérieure, décrit une courbe dès la base, cependant beaucoup moins prononcée que chez les individus adultes du *B. abyssinicus*. Pour arriver à une opinion décisive, il faudrait pouvoir le comparer à un individu jeune du *Buceros* d'Abyssinie, de provenance authentique, qui n'existe pas malheureusement dans les collections du Muséum de Lisbonne.

Sans abandonner ce curieux groupe de Calaos africains je désire ajouter quelques mots relativement à une espèce que M. Elliot vient de décrire sous le nom de *Buceros sharpii* ('Ibis,' 1873, p. 177).

Le Muséum de Lisbonne possède depuis quelque temps un individu du Gabon, dont les caractères s'accordent parfaitement avec ceux des individus décrits par M. Elliot: *noir à reflets verdâtres, rémiges secondaires blanches à l'exception des 2 ou 3 dernières, rectrices moyennes entièrement noires, rectrices latérales blanches avec une tache irrégulière noire vers la base*. Cet individu, acquis de la Maison Verreaux de Paris, porte sur l'étiquette, écrite de la main de mon ami Jules Verreaux, le nom de *B. fistulator*, Cassin.

En effet la description publiée en 1859 par Cassin dans les 'Proceedings de l'Ac. Sc. de Philadelphia' convient très-bien à cet individu, en même temps qu'elle se trouve parfaitement d'accord avec celle du *B. sharpii*, publiée par M. Elliot.

Mais il faut ne pas oublier que Cassin avait publié dans le même recueil quelques années auparavant, en 1850, une première description du *B. fistulator*, qui diffère considérablement de celle de 1859: elle s'adapte fort bien à deux autres individus d'Afrique occidentale, qui se trouvent également au Muséum de Lisbonne. Outre leurs dimensions, qui sont plus petites, ces individus diffèrent du premier

par leur système de coloration: *les rémiges secondaires sont noires avec l'extrémité blanche, la queue est noire avec les rectrices latérales terminées de blanc.*

Pour moi ces deux individus appartiennent au vrai *B. fistulator*, celui décrit par Cassin en 1850, tandis que l'autre individu, décrit par Cassin sous le même nom en 1859, est d'une espèce tout-à-fait distincte, que M. Elliot a bien raison de désigner sous un nom nouveau, celui de *B. sharpii*.

Le *B. casuarinus*, Gray, établi seulement d'après une tête, doit se rapprocher beaucoup de cette dernière espèce, si toutefois il ne lui est pas identique (*vide Ann. & Mag. Nat. Hist.* 1871, vol. viii. p. 437, pl. xvii.).

5. Note sur l'Habitat de l'*Euprepes coctei*, Dum. et Bibr.
By J. V. BARBOZA DU BOCAGE, F.M.Z.S.

[Received September 3, 1873.]

Duméril et Bibron publièrent en 1839 dans le 5^e volume de l'Erpétologie Générale la description d'un Scincoidien de grande taille, représenté dans les galeries du Muséum de Paris par un spécimen unique rapporté du Portugal par E. Geoffroy Saint-Hilaire. Cette espèce, extrêmement intéressante par sa taille énorme, par le nombre considérable des séries longitudinales d'écaillés dont le tronc est revêtu et par d'autres particularités de son organisation, fut nommée par les AA. de l'Erpétologie Générale *Euprepes coctei* (*lege coc-teauii*) en l'honneur de Cocteau, si prématurément enlevé à la science.

Duméril et Bibron ne connaissaient pas l'habitat de l'espèce, mais ils la supposaient vaguement d'origine africaine. Voici comment ils s'expriment à ce sujet: "La patrie de cette espèce ne nous est pas connue, mais nous la supposons originaire des côtes d'Afrique; le seul individu de cet *Euprepes* que nous ayons été dans le cas d'observer appartient à notre Musée national, où il a été apporté de Lisbonne, en 1809, avec d'autres objets d'histoire naturelle provenant du cabinet de cette ville"*.

Depuis cette époque jusqu'à nos jours, malgré le grand développement qu'ont en dans ces dernières années les voyages d'exploration, surtout en Afrique, l'*E. coctei* n'avait été retrouvé par aucun voyageur, et le spécimen du Muséum de Paris continuait à être regardé comme la seule preuve matérielle et authentique de son existence quelque part.

Il y a quelque temps j'avais découvert au Muséum de Lisbonne parmi d'autres reptiles provenant, comme l'exemplaire du Muséum de Paris, de l'ancien *Cabinet d'Ajuda*, trois spécimens d'un gros Scincoidien qui, malgré leur mauvais état de conservation, ressem-

* *Vide* Erpétologie Générale, v. p. 668.

blaient d'une manière frappante à l'*E. coctei*. Malheureusement ces individus, préparés à sec, ne portaient pas aucune indication d'après laquelle il me fut permis de vérifier leur provenance. Du reste il paraît que c'était l'habitude dans l'ancien cabinet d'Ajuda de faire disparaître toute indication de ce genre, car nous n'avons pu la trouver dans aucun des exemplaires ayant appartenu à ses collections.

Le *facies* de l'espèce me faisait partager l'opinion de Duméril et Bibron quant à leur habitat, je la croyais comme eux africaine ; cependant il me semblait peu probable qu'elle dut venir des possessions portugaises de l'Afrique continentale, et j'avais un vague espoir, appuyé sur des raisons qu'il serait fort long d'énumérer ici, qu'on la retrouverait un jour ou dans les îles de St. Thomé et du Prince ou, plus probablement, dans celles de l'archipel du Cap Vert.

Quelques renseignements que j'avais reçus dernièrement d'un voyageur français très-instruit, M. de Cessac, au sujet de l'existence probable d'un *lacertien* de grande taille dans un îlot inhabité de ce dernier archipel, paraissaient apporter une nouvelle confirmation à ma manière de voir.

Or mes prévisions viennent en effet de se réaliser. Je viens de recevoir 3 spécimens vivants, deux adultes et un jeune, de l'*Euprepes coctei*, identiques aux anciens spécimens du *Cabinet d'Ajuda* et parfaitement conformes à la description publiée dans l'Erpétologie Générale. Ces 3 individus, qui m'ont été envoyés de l'île Saint Iago du Cap Vert par M. le Dr. Hopffer, Chef de service de Santé dans ces îles, ont été pris sur un îlot inhabité situé à proximité de l'île Saint Vincent et bien connu sous le nom de *Ilheo-branco* (îlot-blanc).

Les spécimens de l'ancienne collection du Muséum de Lisbonne (Cabinet d'Ajuda) proviennent du même endroit. Ils ont été envoyés en 1784 par un naturaliste portugais, J. da Silva Feijó, avec d'autres produits naturels. J'ai pu retrouver une liste, écrite de la main de Feijó, des produits naturels rassemblés par ce zélé naturaliste sur l'*Ilheo-branco* et envoyés par lui au *Cabinet d'Ajuda*, parmi lesquels les spécimens du l'*E. coctei* se trouvent indiqués sous le nom de *Lagartos*, nom dont on se sert encore aujourd'hui pour les désigner.

6. On some new or little-known Fishes of India.

By Surgeon-Major F. DAY.

[Received August 5, 1873.]

During the last six months, the following new or little-known Indian fishes have been personally collected.

Whilst in South Canara I was fortunate in having the assistance of H. S. Thomas, Esq., the Collector of the district, who has during the last few years done so much for practical pisciculture.

CIRRHITICHTHYS BLEEKERI, sp. nov.

Shun-gun, Tan.

D. $\frac{10}{12}$. P. 8+viii. V. $\frac{1}{5}$. A. $\frac{3}{6}$. L. l. 45-46. L. tr. $\frac{5}{10}$.

Length of head about $\frac{1}{4}$, of caudal $\frac{2}{11}$, height of body $\frac{1}{3}$ of the total length. *Eyes*, diameter $\frac{1}{3}$ of length of head, $\frac{3}{4}$ of a diameter from the end of snout and apart. Snout pointed, whilst the length of the maxillary bone equals $1\frac{1}{2}$ diameter of the orbit. Preopercle very coarsely denticulated. *Teeth*, a transverse patch on the vomer, and in a narrow band on the palatines. The largest tooth in the lower jaw is a posterior recurved canine; whilst the external row is the largest in the maxilla. *Fins*: the sixth dorsal spine is the longest; first dorsal ray elongated: the longest of the seven free rays of the pectoral fin is the second, which reaches to above the anal spines; the second of these last is the longest and strongest; the ventral fin reaches the vent; caudal emarginate. *Colours* rosy, with a large ill-defined blotch below the soft dorsal, extending half the way down the side; a small black dot behind the upper edge of the preopercle; dorsal, caudal, and anal fins all more or less banded; soft dorsal darker than its spinous portion.

Hab. Madras, where I obtained two specimens, and a third exists in the Museum. All are about 4 inches in length.

This species appears to be very similar to *Cirrhites punctatus*, Cuv. & Val., which species, however, has no palatine teeth. In volume iii. of the 'Histoire Naturelle des Poissons,' p. 67, it is observed of the genus *Cirrhites*, "Leur vomer porte des dents en velours, mais il n'y en a point à leurs palatins," whilst *Cirrhites punctatus* forms the second species of the genus (p. 70).

As I have some observations to make upon the mode of hatching the ova in the genera *Arius* and *Osteogeniosus*, it will be necessary to mention that the *Macrones gulio*, Ham. Buch., was in full breeding condition in April. At this period fishes of the two former genera were also breeding; but although they apparently selected much the same localities, the process differed very considerably. The *M. gulio* breeds within tidal influence; but its eggs are small, and laid in large numbers at one time, as in the other species of the same genus which breed in the fresh waters.

On my arrival at Mangalore, Mr. Thomas showed me some eggs of siluroid fishes, averaging about $\frac{1}{2}$ an inch in diameter, and informed me that they had been obtained out of the mouths of living ones. Wishing to ascertain how long incubation, if I may use the term, lasted, he placed some of the adults in a suitable place by the edge of the estuary. Unfortunately some natives became aware of the experiment and carried off the fish.

When fishing at Cassegode, upwards of a hundred specimens of various species of *Arius* and of *Osteogeniosus militaris* were captured. Amongst the specimens were siluroid eggs in the bottom of the boats and in the fish-baskets; these averaged $\frac{1}{2}$ an inch in

diameter. Inside the mouths of several of the males of the *Arius subrostratus*, C. & V., *A. gagora*, H. B., *A. sumatranus*, Bennett, and *Osteogeniosus militaris*, Linn., were from 15 to 20 eggs; and it was evidently some of these which had been dropped into the boats and baskets.

On examining the eggs, some were in an early stage of development, whilst in others the eyes of the embryo were very distinct, even the young could be perceived moving about. In the mouth of one of these fishes was a hatched fry, with the yolk-bag still adherent; and on cutting open other eggs it became evident that in a very short time the little ones would have emerged. These eggs filled the cavity of the mouth, and extended down as far as the branchiæ.

On dissecting a number of these specimens, there was an entire absence of food in the intestinal canal. The fishermen asserted that these adult fishes, which averaged about 11 or 12 inches in length, invariably carried about the eggs in their mouths until they were hatched. Every one of these were males; and the proportion captured was five to every female*.

Next, the females came under examination. On tracing up the ovisacs it appeared that very large numbers of eggs existed in them, but *not all of the same size*. On the part furthest removed from the outlet the eggs were of full size, and about 50 in number, whilst other batches of much smaller size existed, evidently to take the place in due time of the larger ones when they had been deposited.

The full-sized eggs were each attached to the inside of the ovisac by a pedicle of varying length, distinctly supplied with blood-vessels of a considerable size. No cicatrices could be detected showing that any eggs had burst into the cavity of the abdomen; and it would appear probable that they are extruded in the usual way, which idea is strengthened by the peculiar formation of the ventral fins.

On looking at the conformation of the ventral fins of the males and the females, one is at once struck at the difference which exists in the two sexes†. The ventrals in the males are not enlarged; but they are very considerably so in the females, reaching well over some of the first of the anal rays. They are also thickened by a deposit of fat, whilst the innermost ray has a large pad of fatty matter attached to its posterior margin. These fins can be expanded into a cup-like surface, the use of which is probably to receive the eggs as extruded.

Perhaps the eggs as laid in batches are received into this receptacle formed by the ventral and anal fins, and may be here vivified by the male, who then removes them in his mouth, where they remain until hatched. Although the males at this interesting period appear to fast, the females do not do so, their intestines being found to be replete with food, doubtless a necessity for the due production of their eggs.

* This is curious, as differing in the usual proportion of the sexes. In the *Chupea palasak*, C. & V., I found just the reverse obtained.

† The comparative length of ventral fins in fishes of the above genera is not any guide to *species*, but merely to *sexes*.

In the extensive genus *Barbus* I have obtained some species which are apparently new, whilst a few addenda have to be made to some previous descriptions.

BARBUS (BARBODES) THOMASSI, sp. nov.

B. iii. D. $\frac{4}{9}$. P. 17. V. 10. A. $\frac{3}{5}$. C. 19. L. l. 31. L. tr. $\frac{6}{5\frac{1}{2}}$.

Length of head from $\frac{2}{11}$ to $\frac{2}{13}$, of caudal $\frac{2}{9}$, height of body $\frac{1}{4}$ of the total length. *Eyes*, diameter $\frac{1}{4}$ to $\frac{2}{9}$ of the length of head, $1\frac{1}{2}$ to 2 diameters from the end of snout and apart in the adult. Body not much elevated. Interorbital space somewhat convex. Mouth narrow, horseshoe-shaped. No labial fold across the lower jaw, nor pores on the snout. *Barbels* thin, the rostral shorter than the maxillary, which last, however, do not equal one diameter of the orbit in length. *Fins*: the dorsal with its upper edge very concave, its anterior rays being slightly higher than the body below them, its last undivided ray smooth, weak, and articulated; ventral arises under the anterior third of the dorsal; anal, when laid flat, just reaches the caudal, which latter is deeply forked, and its upper lobe the longer. *Lateral line* forms a concavity from its commencement to opposite the posterior end of the base of the dorsal fin, where it becomes straight; $2\frac{1}{2}$ rows of scales exist between it and the base of the ventral fin. *Colours* silvery, shot with red; dorsal and caudal fins of a rich lake-colour, the last being externally edged with black; pectorals, ventrals, and anal stained with greyish black.

Hab. South Canara. When with Mr. H. S. Thomas we obtained eight specimens up to 18 inches in length; but the fish is said to attain to a much larger size. I have named it after my fellow worker in the Indian fisheries.

BARBUS (BARBODES) CURMUCA, H. Buch.

B. iii. D. $\frac{3}{9}$. P. 15. V. 9. A. $\frac{3}{5}$. C. 20. L. l. 41. L. tr. $\frac{8}{3}$.

Length of head nearly $\frac{1}{4}$ ($\frac{3}{13}$), of caudal $\frac{2}{9}$, height of body $\frac{3}{13}$ of the total length. *Eyes* rather high up; diameter nearly $\frac{1}{4}$ of length of head, 2 diameters from end of snout, and $1\frac{1}{2}$ apart. Body somewhat compressed, the dorsal profile rather elevated; head compressed, snout conical. Upper jaw the longer; mouth narrow and horseshoe-shaped; the posterior extremity of the maxilla reaches two-thirds of the distance to below the anterior edge of the orbit. *Barbels*: there are two pairs on the maxilla, none on the snout; the lower maxillary ones equal the length of the orbit, but the upper pair are much shorter. *Fins*: the dorsal commences nearer the snout than the base of the caudal; its last undivided ray is narrow, weak, and articulated in its superior half, whilst the upper edge of the fin is concave. The ventral arises under the middle of the dorsal; the pectoral reaches it; the anal, when laid flat, extends to the base of the caudal, which is deeply forked. *Lateral line*: $3\frac{1}{2}$ rows of scales between it and the base of the ventral. *Colours* silvery; in young specimens the anal is black in its last fourth.

Hab. Very common in South Canara. It is the only species of *Barbus* I have met with in India in which both pairs of barbels are on the maxilla.

BARBUS (BARBODES) LITHOPIDOS, sp. nov.

B. iii. D. $\frac{3}{9}$. P. 15. V. 10. A. $\frac{2}{6}$. C. 19. L. l. 38. L. tr. $\frac{6\frac{1}{2}}{6\frac{1}{2}}$.

Length of head $\frac{2}{11}$, of caudal $\frac{2}{9}$, height of body nearly $\frac{1}{5}$ of the total length. *Eyes*, diameter $\frac{1}{4}$ of length of head, $1\frac{1}{2}$ diameter from end of snout, and 2 apart. Interorbital space somewhat convex. Dorsal and abdominal profiles but slightly and evenly convex. Upper jaw a little the longer; mouth somewhat narrow and horse-shoe-shaped; the posterior extremity of the maxilla reaches two-thirds of the distance to below the anterior edge of the orbit. *Barbels* thin, and about as long as the orbit. *Fins*: upper edge of the dorsal fin deeply concave, the few anterior rays being much elevated and as high as the depth of the body below them; the fin commences midway between the snout and the base of the caudal fin, which is deeply forked. The last undivided dorsal ray is weak and articulated. Ventral arises under the middle of the dorsal; the pectoral does not extend so far as the ventral; the anal, when laid flat, reaches the base of the caudal. *Lateral line*: $3\frac{1}{2}$ to 4 rows of scales between it and the base of the ventral fin. *Colours* slaty, as are all the fins, more especially the caudal, the outer rays of which are whitish.

Hab. South Canara.

TINCA VULGARIS, Cuv.

Some years since a few of these fish were introduced into the waters of the Neilgherry hills by Mr. MacIvor. I obtained a few specimens of the young; and all had their caudal fins forked, as shown in Cuv. & Val. xvi. pl. 484. I mention this, as it has been stated (Fish. B. M.) of this fish that it has "all the fins rounded," and of *Cyprinus perenurus*, Pall., that, "having the caudal fin forked, it cannot be referred to *Tinca*" (vii. p. 265).

CHELA BOOPIS, sp. nov.

B. iii. D. $\frac{2}{7}$. P. 15. V. 8. A. $\frac{3}{15}$. C. 19. L. l. 37. L. tr. $\frac{6\frac{1}{2}}{3\frac{1}{2}}$.

Length of head $\frac{2}{11}$, of caudal and pectoral each $\frac{2}{9}$, height of body $\frac{1}{5}$ of the total length. *Eyes*, diameter $\frac{1}{2}$ of length of head, $\frac{1}{4}$ of a diameter from end of snout and $\frac{1}{2}$ a diameter apart. Cleft of mouth reaching to below the anterior edge of the orbit. Suborbital ring of bones broad, nearly covering the cheek, the third being slightly wider than the preorbital. The median edge anterior to the pectorals is not supported by the dilated bones of the forearm, whilst that portion is smooth. *Fins*: dorsal situated at the commencement of the last third of the body from the snout to the base of the caudal fin; it extends to over the commencement of the anal; dorsal and anal highest anteriorly; caudal deeply lobed,

the lower the longer. *Lateral line* descends gently for nine scales. *Colours* silvery, with a lateral band; dorsal, anal, and caudal tipped with black.

Hab. South Canara, attaining 5 inches in length.

This species differs from *C. argentea* in having fewer scales, a larger eye, and a mouth less deeply cleft.

Whilst in Bombay I obtained a fine specimen of the following apparently new species of *Hemiramphus* :—

HEMIRAMPHUS CIRRHATUS, sp. nov.

D. 14 ($\frac{2}{12}$). A. 12 ($\frac{2}{10}$). L. l. 42. L. tr. $\frac{7}{3}$.

Length of head $\frac{2}{5}$, of beak (beyond the upper jaw) nearly $\frac{1}{4}$, of height of body $\frac{2}{17}$ of the total length. *Eyes* equal $\frac{2}{3}$ of the length of the postorbital part of the head, and $1\frac{1}{4}$ diameter apart. Upper surface of intermaxillary scaled; it is $\frac{1}{4}$ broader at its base than it is long. Preorbital rather higher than long; beak wide; all the fringes moderately developed and of a black colour. *Barbels*, one at either posterior nostril, $\frac{1}{2}$ as long as the orbit. *Fins*: pectoral pointed, rather longer than the head without the snout; the ventral commences in the posterior $\frac{1}{3}$ of the distance between the anterior end of the snout and the base of the caudal, which last is rounded or very slightly emarginate; anal with a very short base, commencing slightly behind the origin of the dorsal, but its length is not $\frac{1}{3}$ of that of the base of the latter fin; anal much highest anteriorly. *Scales* over the upper surface of the head, suborbitals, and opercles, none on the vertical fins. *Colours* silvery a very narrow median silvery line exists, but under the dorsal becomes $\frac{1}{3}$ as wide as a scale. Upper half of dorsal black.

Hab. Bombay.

Before completing this paper I propose offering a few remarks upon two animals inimical to fish, viz. the *Crocodylus palustris* and the *Lutra nair*.

The common Marsh-Crocodile, or *C. palustris*, Less., is stated to be less migratory than the *C. porosus*, Schn.; but in Canara it appeared to be as common in the vicinity of the sea as I have perceived it to be in the upper portions of the Ganges, Jumna, and Indus. In South Canara it is asserted to attain to 16, in Northern India 12, whilst in Ceylon 13 feet in length is its full size. The largest we obtained was scarcely 9 feet in length. Whilst netting a piece of water near the sea, one of these reptiles came to the surface with a large fish crosswise in its jaws; this it distinctly bit across and then swallowed.

These crocodiles are reputed by the natives to eat their own young should they not disperse to find other feeding-grounds when old enough to capture food for themselves. All we could obtain, except the very young ones, we opened for the purpose of ascertaining what description of food had been taken. All had stones inside

their stomachs, perhaps swallowed whilst seizing their prey; but against such a theory is the fact that the same substances are found inside the true fish-eating Crocodile (*Gavialis gangeticus*, Gm.), which frequents the Indus, Jumna, Ganges, Brahmaputra, Mahanuddi, and their affluents, and captures its prey whilst swimming. Besides stones, portions of crabs and water-beetles (*Dytiscus*) were found in every one. Many had the abdominal scales of snakes; and in one was the decomposed body of an entire otter, in another a water-rat, and in a third some of the roots of the mangrove-bush. Elsewhere tortoises and turtles are preyed upon by them.

Mr. Thomas had some otters (*Lutra nair*) of various sizes, which he had raised from babyhood in order to ascertain what their usual food is. When very young each consumed about one hundred frogs (*Rana cyanophlyctis*, Schn.) daily. But in April when I saw them, and they were about two-thirds grown, these small frogs were more difficult to procure, and they were having six to eight large bull-frogs (*Rana tigrina*, Daud.) daily. This king amongst the frogs does not hesitate in eating those of the smaller species. The otters, irrespective of the food found them, hunted about the garden for whatever they could find.

They evidently looked very suspiciously at the poultry, and when older would, I suspect, help themselves to their feathered companions. One day we placed a live rat in a room and brought the otters; but although they ran up to it, they did not attempt to do it any injury.

Some of these otters were brought up from their earliest days on rice and vegetables, others on animal food; but the dispositions of all appeared to be the same. If they were interfered with in the slightest degree they at once rushed at the person whose interference they objected to. Blows had to be severe to keep them in order, but by degrees they seemed to acquire a wholesome dread of a thick stick.

These otters, then, are not wholly disadvantageous to fisheries in India, as one of the greatest enemies to the ova is to be found in the frogs, and these they devour, to a great extent at least, when in confinement. In places where fish are very scarce, as on the Neilgherries, frogs, snails, and such like food appear to form their usual diet.

7. On a Collection of Birds from Mombas in Eastern Africa.

By R. BOWDLER SHARPE, F.L.S., F.Z.S., &c., Senior Assistant, Zoological Department, British Museum.

[Received September 9, 1873.]

(Plate LVIII.)

For the opportunity of examining this collection I am again indebted to my friend Mr. Ward, of Halifax, to whom once more I



1.

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1. BRADYORNIS SUBALARIS.
2. TRERON WAKEFIELDI

have the pleasure of offering my best thanks for the assistance he is continually rendering to the Museum and to ornithology generally. The gentleman who has formed the present collection is the Rev. Thomas Wakefield, who may well be congratulated on the success of this his first undertaking in the cause of ornithological science; for, although chiefly devoting himself to collecting insects, he has found time to form a collection of birds with no inconsiderable result. The number of novelties and rarities is not large; but at the same time the situation of Mombas and the period of the year (January and February) when the birds were collected have shown the route by which some of our European birds proceed on their way to their winter home in South Africa. It would not be fair at present to draw conclusions as to the avifauna of Mombas and its affinities; but the locality shows a mixture of Cape and North-east African forms; and I therefore trust that this is by no means the first collection of birds which we shall receive from this very interesting place.

The excellent work of Drs. Finsch and Hartlaub on the birds of Eastern Africa has been my chief guide in the determination of the species.

1. *ASTURINULA MONOGRAMMICA* (Temm.); Finsch u. Hartl. Vög. Ostaf. p. 59.

Mombas is a new locality for this Hawk, although it has been found to the north and south of it. A specimen in Captain Shelley's collection from the Zambesi, however, is *Asturinuia meridionalis*.

2. *PŒOCEPHALUS FUSCICAPILLUS* (Verr. et Des Murs).

Pionias fuscicapillus, Finsch u. Hartl. Vög. Ostaf. p. 499, tab. vii.

Three specimens. Already obtained at Mombas by Von der Decken.

3. *COCCYSTES JACOBINUS* (Bodd.); Sharpe, P. Z. S. 1873, p. 597.

The occurrence of this species is of interest as showing that it extends along the east coast of Africa; but it is not yet known whether it is a migrant from north to south.

4. *INDICATOR MAJOR*, Steph.; Sharpe, Cat. Afr. B. p. 14.

Two specimens, one adult and one young. This species appears to be altogether new to the avifauna of Eastern Africa.

5. *POGONORHYNCHUS TORQUATUS* (Dumont); Finsch u. Hartl. Vög. Ostaf. p. 503; Marsh. Monogr. Capit. pl. x.

Three specimens of this bird, differing from South-African examples in their smaller size and in the greater extent of black on the breast and hind neck.

6. *PICUS HARTLAUBI* (Malh.); Finsch u. Hartl. Vög. Ostaf. p. 512.

One specimen. This Woodpecker has not previously been recorded northwards of Zanzibar.

7. *CORACIAS GARRULA*, L. ; Sharpe, Ibis, 1871, p. 189.

This species has not been met with before between the Somali coast and Natal. Its appearance at Mombas in the winter season, when alone the bird visits Africa, furnishes us with the information as to the route by which the last-named locality is reached.

8. *CORACIAS CAUDATA*, L. ; Sharpe, Ibis, 1871, p. 194.

This species seems to range over the whole of Eastern Africa. A list of the exact localities inhabited by the species is given in my paper (*l.c.*).

9. *EURYSTOMUS AFER* (Lath.) ; Sharpe, Ibis, 1871, p. 275.

New to the locality.

10. *MEROPS PUSILLUS* (Müll.) ; Sharpe, Cat. Afr. B. p. 4.

M. minutus, Finsch u. Hartl. Vög. Ostaf. p. 188.

Already obtained at Mombas by Von der Decken.

11. *MEROPS ALBICOLLIS*, V. ; Finsch u. Hartl. Vög. Ostaf. p. 185.

Widely spread in North-eastern and Western Africa, but not occurring in the south. Mr. Wakefield sends several specimens, showing that it is not uncommon at Mombas ; and Von der Decken procured it at Zanzibar.

12. *IRRISOR ERYTHORHYNCHUS* (Lath.) ; Finsch u. Hartl. Vög. Ostaf. p. 202.

Recorded for the first time from Mombas, but known from Zanzibar and Somali Land.

13. *HALCYON SEMICÆRULEA* (Forst.) ; Sharpe, Monogr. Alced. pl. 64.

New to Eastern Africa, but not rare in the north-eastern portion of the continent.

14. *HALCYON CHELICUTENSIS* (Stanl.) ; Sharpe, Monogr. Alced. pl. 67.

Several specimens of this little Kingfisher.

15. *PYCNONOTUS NIGRICANS* (V.) ; Finsch u. Hartl. Vög. Ostaf. p. 297.

One specimen.

16. *ANDROPADUS FLAVESCENS*, Hartl. ; Finsch u. Hartl. Vög. Ostaf. p. 295, tab. iii. fig. 1.

One specimen. Procured at Mombas by Von der Decken also.

17. *DRYMÆCA ISODACTYLA* (Peters) ; Finsch u. Hartl. Vög. Ostaf. p. 236.

One specimen, agreeing best with the measurements and descrip-

tion of this species. The determination of an African *Drymæca* is now-a-days no easy matter, notwithstanding the excellent descriptions of Dr. von Heuglin and the authors of the "Vögel Ostafrika's." A synoptic table would be a great boon; but the desiderata in the 'Hand-list' are too great to allow of my attempting one at present.

18. *NECTARINIA COLLARIS* (V.); Finsch u. Hartl. Vög. Ostaf. p. 223.

A female specimen of this little Sunbird, already sent from Mombas by Von der Decken.

19. *NECTARINIA JARDINEI*, Verr.; Finsch u. Hartl. Vög. Ostaf. p. 218.

A specimen in moult, but apparently referable to this Sunbird, which has already been noted from Mombas.

20. *NECTARINIA GUTTURALIS* (L.); Finsch u. Hartl. Vög. Ostaf. p. 216.

Two adults of this Sunbird, already obtained at Mombas by Von der Decken.

21. *HIRUNDO PUELLA*, Temm.; Sharpe, P. Z. S. 1870, p. 319.

One specimen: new to the locality.

22. *HIRUNDO MONTEIRI*, Hartl.; Sharpe, P. Z. S. 1870, p. 316.

One specimen. Mombas is by far the most northerly point from which this species has yet been obtained.

23. *MUSCICAPA GRISOLA* (L.); Finsch u. Hartl. Vög. Ostaf. p. 300.

One specimen. Von der Decken also procured it at Zanzibar.

24. *BATIS SENEGALENSIS* (L.); Sharpe, Ibis, 1873, p. 163.

One specimen with the head black, apparently confirming my suggestion as to this species having a more southern range than *B. orientalis*.

25. *BRADYORNIS SUBALARIS*, sp. n. (Plate LVIII. fig. 1.)

Above ashy brown, with somewhat of a greyish shade, with faint indications of dark brown centres to the feathers of the crown and back, more particularly the former; wing-coverts ashy brown, with light fulvous-brown edgings; quills brown, the primaries narrowly margined with rufous brown, the secondaries margined and tipped with whitey brown, the primaries clearly rufescent at base of outer margin; tail ashy brown, margined and tipped with pale fulvous; ear-coverts pale brown, with very narrow white shaft-lines; lores, feathers round the eye, and cheeks buffy white, shaded with brown; throat and under surface of body buffy white, the sides of the body, thighs, and under tail-coverts, as well as the inner lining of the

primaries fawn-colour; bill and feet blackish. Total length 6·3 inches, culmen 0·58, wing 3·25, tail 2·8, tarsus 0·85.

One specimen of a *Bradyornis*, which I am unable to refer to any known species. It is allied to *B. pallidus*, Müll., but is smaller, darker, and above all distinguished by its dark fawn-coloured under wing-coverts.

26. *DICRURUS DIVARICATUS*, Licht.; Finsch u. Hartl. Vög. Ostaf. p. 323.

Two specimens. Von der Decken also procured the species at Mombas.

27. *TELEPHONUS ERYTHROPTERUS* (Shaw); Finsch u. Hartl. Vög. Ostaf. p. 336.

Two specimens. Already known from the locality.

28. *DRYOSCOPIUS CUBLA* (Shaw).

Laniarius cubla, Finsch u. Hartl. Vög. Ostaf. p. 345.

This species has been recorded from Mosambique and Zanzibar. Mr. Wakefield sends one specimen from Mombas.

29. *DRYOSCOPIUS SALIMÆ* (Hartl. & Finsch).

Laniarius salimæ, Finsch u. Hartl. Vög. Ostaf. p. 349, tab. v. fig. 3.

One specimen.

30. *PRIONOPS GRACULINUS*, Cab.; Finsch u. Hartl. Vög. Ostaf. p. 368.

One specimen of this Shrike, first discovered by Von der Decken in the same locality.

31. *ORIOLOUS GALBULA*, L.; Sharpe, Ibis, 1870, p. 215.

The occurrence of this species at Mombas indicates the route by which the Golden Oriole arrives in South Africa. It is new to the avifauna of Eastern Africa.

32. *ORIOLOUS LARVATUS*, Licht.; Sharpe, Ibis, 1870, p. 223.

One young specimen, apparently of the large form.

33. *COLIUS LEUCOTIS*, Rüpp.; Finsch u. Hartl. Vög. Ostaf. p. 472.

One specimen of the White-cared Coly, which seems to range along the east coast of Africa as far as Zanzibar.

34. *PHOLIDAUGES VERREAUXI*, Bocage, in Finsch u. Hartl. Vög. Ostaf. Nachtr. p. 867.

The occurrence of this species so far north is of the highest interest. The bird noticed by Captain Sperling at Mosambique